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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,500	10/16/2003	Darrin Coffey	1805-0010	9043
28078	7590	12/07/2005	EXAMINER	
MAGINOT, MOORE & BECK BANK ONE CENTER/TOWER 1111 MONUMENT CIRCLE INDIANAPOLIS, IN 46204			POULOS, SANDRA K	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,500

Applicant(s)

COFFEY ET AL.

Examiner

Sandra K. Poulos

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/16/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Mr. Coffey and Mr. Steuerwald did not include the date under the inventor's signature.

Drawings

2. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
- a. The title on page 1 recites "fiberflass" rather than "fiberglass."
 - b. On page 1, last line of paragraph 2 under Background of the Invention, "if" is incorrectly spelled "it."

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- c. On page 7, paragraph 2, second to last sentence, "distribute" should be "distributed."
 - d. The last sentence on page 9 needs a period at the end of "inch."
- Appropriate correction is required.

Claim Objections

- 4. Claim 14 is objected to because of the following informalities: It is unclear what is meant by "wherein the paving material is mixture is concrete."
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-8 and 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More particularly, claims 4-8 and 12-13 recite "such components" and "such particles" wherein it is unclear what "such components" and "such particles" represent.

It is to be noted that for the purposes of examination, examiner has assumed that "such components" are "said components" and "such particles" are "said particles."

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 5-6, 9-11, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuji (JP 05-140464), wherein a JPO machine translation of Tsuji '464 has been used hereafter.

Tsuji '464 discloses ground FRP combined with asphalt for use as a paving material (pg 1, paragraphs 1-4, 8, 16). The FRP is ground to at least 12 mm, particularly 0.5-6 mm (pg 4, paragraph 33). The FRP is passed through a grinder (pg 3, paragraph 22). The waste FRP is obtained from waste construction materials, bathtubs, boats, tanks, autoparts, and other molded goods (pg 3, paragraphs 29-32). The FRP is crushed and roughly ground before pulverization (pg 3, paragraph 32).

It is examiner's position that crushing and chipping are the same act of breaking down a larger material.

Hence, Tsuji '464 anticipates the cited present claims.

7. Claims 1, 5-6, 9-11, 14, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitano et al (JP 2000-254919), wherein a JPO machine translation of Kitano '919 has been used hereafter.

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Kitano '919 discloses grinding FRP trash and combining with concrete cement (pg 1, paragraph 1; page 4, paragraphs 27-28). The waste FRP suitable for recycling in this manner is from collected trash, from molded objects, from manufacturing, and collected from the production process (pg 1, paragraph 1; pg 2, paragraph 11). The waste FRP is crushed and grinded (pg 2, paragraph 11) and the preferable particle diameter is 3 mm or more (pg 3, paragraph 17). A shredder or roll mill is also used on the FRP (abstract; pg 2, paragraph 13).

It is examiner's position that because Kitano '919 discloses grinding the FRP debris and adding to cement at the time of debris manufacture (pg 4, paragraph 29), the scrap FRP processing step occurs at the site of the obtaining step.

Hence, Kitano '919 anticipates the cited present claims.

8. Claims 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiokawa (JP 2002-284563), wherein a JPO machine translation of Shiokawa '563 has been used hereafter.

Shiokawa '563 discloses the use of waste FRP in combination with concrete for use in paving (pg 1, paragraph 1). The FRP is disclosed as "thrown away as trash" (pg 1, paragraph 2). The size of the FRP is from 5 to 200 mm (pg 2, paragraph 16).

Hence, Shiokawa '563 anticipates the cited present claims.

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9. Claims 1, 4 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Shiokawa (JP 2002-284563).

The discussion with respect to Shiokawa '563 in paragraph 8 above is incorporated herein by reference.

Hence, Shiokawa '563 anticipates the cited present claims.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

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Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 2-4 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitano '919 in view of Hawley's Condensed Chemical Dictionary.

The discussion with respect to Kitano '919 in paragraph 7 above is incorporated herein by reference.

Kitano '919 does not disclose that (i) the concrete cement is used as a driving surface, (ii) the waste FRP is from a landfill, and (iii) the waste FRP is residual material or defective products resulting from an FRP manufacturing process.

Hawley's CCD discloses that concrete is used in road construction (pgs 239 and 305). It would have been obvious to one of ordinary skill in the art to use the concrete composition in Kitano '919 as a driving surface because concrete is used in road construction.

Further, in one embodiment the waste FRP is collected from the trash, therefore it would have been obvious to one of ordinary skill in the art to obtain the waste FRP from the landfill because landfills are major sources of trash and because the waste FRP is trash, one would expect success in obtaining FRP

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from a landfill, thereby obtaining the invention as set forth in the presently cited claims.

The waste FRP suitable for recycling is also from manufacturing and collected from the production process. It would have been obvious to one of ordinary skill in the art to use residual material and defective products from FRP manufacturing because Kitano '919 discloses that the FRP is waste from manufacturing, and it is obvious that residual material and defective products are included in manufacturing waste, and one of ordinary skill would thereby obtain the invention as set forth in the presently cited claims.

12. Claims 7-8 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji '464 in view of Hawley's CCD and Brown (US 3,852,046).

The discussion with respect to Tsuji '464 in paragraph 6 above is incorporated herein by reference.

Tsuji '464 does not disclose that (i) the asphalt-FRP paving material is used as a driving surface and (ii) cutting FRP into strips so the components are capable of being fed into a chipper or shredder.

Hawley's CCD discloses that asphalt is used in road construction (pg 100). It would have been obvious to one of ordinary skill in the art to use the asphalt-FRP paving material in Tsuji '464 as a driving surface because when asphalt is used in road construction it will become a driving surface, thereby obtaining the invention as set forth in the presently cited claims.

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Brown '046 discloses grinding scrap plastics for use in asphalt compositions (abstract; col 5, lines 13-18). The grinding phase may be carried out in one or more steps (col 2, lines 29-30). The first phase may utilize a round grinding mill cutter which yields course particles, ribbons, or granules of the plastic which particles may thereafter be further directed to a fine grinding step to yield finer particles (col 2, lines 30-35). Shreds, ribbons, and other highly irregular particles may also be directly processed without additional steps (col 3, lines 40-45). It would have been obvious to one of ordinary skill in the art to use shredded or ribboned FRP, which are the same as cut strips, because Brown '046 teaches that the phase of breaking down the FRP can be carried out in one or more steps, and therefore can be shredded several times. One would be motivated to do so because Brown '046 discloses that the asphalt composition is improved when incorporating the scrap plastic of the invention (col 5, lines 13-18). One would expect reasonable success by replacing the scrap plastic disclosed in Brown with the scrap fiber-reinforced plastic in Tsuji '464 because both are waste plastics that are ground up and used as filler material for asphalt paving compositions.

Therefore, the claimed invention as set forth in the presently cited claims is obtained from Tsuji '464 in view of Hawley's CCD and Brown '046.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji '464 in view of Burns (US 5,936,015).

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The discussion with respect to Tsuji '464 in paragraph 6 above is incorporated herein by reference.

The difference between Tsuji '464 and the presently claimed invention is that there is not disclosed mixing the FRP particles with a paving material in a hopper.

Burns '015 discloses that polymer material and asphalt paving material can be produced in existing asphalt mixing equipment and paving machines (col 3, lines 5-8). Burns '015 discloses mixing polymer particles with asphalt in the hopper of a paving spreader machine to produce asphalt concrete which is applied to a road surface (col 6, lines 6-12). It would have been obvious to one of ordinary skill in the art to use combine the FRP and asphalt of Tsuji '464 in a hopper because Burns '015 discloses that existing mixing methods (i.e. use of the hopper) are applicable to paving mixtures of polymeric material and asphalt, thereby obtaining the invention as set forth in the presently cited claims. One would expect reasonable success by replace the ground waste rubber (col 5, lines 10-11) disclosed in Burns '015 with the scrap fiber-reinforced plastic in Tsuji '464 because both are polymeric materials that are ground up and used as a filler material for asphalt paving compositions.

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji '464 in view of Gjerulff (US 5,190,371).

The discussion with respect to Tsuji '464 in paragraph 6 above is incorporated herein by reference.

The difference between Tsuji '464 and the presently claimed invention is that there is not disclosed blowing FRP particles into a rotating drum containing the paving material.

In column 7 Gjerulff '371 discloses drum-mixing a bituminous paving mixture wherein asphalt and additives are mixed together and the binders and/or additives may be blown into or pushed into the drum.

It would have been obvious to one of ordinary skill in the art to use drum-mix the paving composition in Tsuji '464 because the method used in Gjerulff '371 is useful for both continuous production of paving mixture and also small batches of asphalt with different compositions, thereby obtaining the invention as set forth in the presently cited claims. One would expect reasonable success by using scrap fiber-reinforced plastic in the asphalt paving mixture because Gjerulff '371 discloses that solid additives can be used as a filler material for asphalt paving compositions.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Hwang et al (KR 2001-046209) discloses a method of recycling waste fiber reinforced plastics by grinding and mixing into cement concrete.

(abstract only)

-Suzuki et al (JP 05-286743) discloses pulverized FRP mixed with concrete.

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-Fishback et al (US 5,702,199) discloses an asphalt concrete or paving material including recycled plastic.

-Forgac et al (US 6,844,418) discloses waste plastic as an additive for asphalt.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 7:00-4:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Sandra K. Poulos
11/30/05

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